

REMARKS

Claims 1-39 are pending. Claim 40 is amended herein. No new matter has been added as a result of the claim amendment.

102 Rejection

Claims 32 and 33 are rejected under 35 U.S.C. § 102(e) as being anticipated by Saxena (U.S. Patent Pub. No. US2002/0103778). The Applicant has reviewed the cited reference and respectfully submits Saxena does not anticipate or render obvious the present invention as is recited in Claims 32 and 33.

The examiner is respectfully directed to independent Claim 32 drawn to a computer program product for use in conjunction with a client computer system that includes:

... a prefetch predictor, executable by the at least one processing unit, for identifying additional files for possible prefetching by the client computer; the server module including instructions for including in a supplemental portion of the reply to the request from the client computer prefetch hint information identifying at least one of the additional files, wherein the supplemental portion is distinct from the content portion of the reply.

Saxena does not teach or suggest a computer system that includes a server module that generates a reply to a request that includes a specified file and “a prefetch predictor ...for identifying additional files for possible prefetching by the client computer” wherein the reply identifies “at least one of the additional files” as is set forth in Claims 32 and 33. Saxena only teaches a method and system for adaptive prefetching. In the Saxena system whether a cache server performs a prefetch of a web page from an origin server depends on the importance (“weight”) of a link and an associated web page to the origin server. Nowhere, in the Saxena reference is it shown or suggested that a reply to a request include data related to additional files for possible prefetching by the client computer as is recited

in Claims 32 and 33. Consequently, Saxena does not anticipate or render obvious the embodiments of Applicant's invention as are set forth in Claims 32 and 33. As such, Applicant respectfully submits that Claims 32 and 33 are in condition for allowance.

103 Rejections

Claims 1-29, 31 and 37-39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shatil et al. (U.S. Patent No. 6,728,840) in view of Saxena (U.S. Patent Pub. No. US2002/0103778). The Applicant has reviewed the cited reference and respectfully submits that Shatil et al. in view of Saxena does not anticipate or render obvious the present invention as is recited in Claims 1-29, 31 and 37-39.

The examiner is respectfully directed to independent Claim 1 drawn to a computer program product for use in conjunction with a client computer system that includes:

... a prefetch prediction engine coupled to the prefetch prediction model for evaluating the specified files with respect to prefetch criteria, including energy efficiency prefetch criteria, and generating a prefetch decision with respect to each file of the specified files; instructions for storing in a queue entries identifying each specified file for which the prefetch prediction engine generates an affirmative prefetch decision; and instructions for fetching files identified by entries in the queue.

Claims 11, 21, 37, 38 and 39 recite limitations similar to those found in Claim 1. Claims 2-10 depend from Claim 1, Claims 12-20 depend from Claim 11, and Claims 22-29 and 31 depend from Claim 21 and set forth additional limitations of the claimed invention.

Shatil et al. does not anticipate or render obvious a computer program product that includes a computer program mechanism that includes "a prefetch prediction engine coupled to the prefetch prediction model for evaluating the specified files with respect to prefetch criteria, including energy efficiency prefetch criteria, and generating a prefetch

decision with respect to each file of the specified files” as is set forth in Claim 1 (Claims 11, 21, 32, 37, 38 and 39 contain similar limitations, or similar limitations related to cost efficiency). In order to meet the limitations of Claims 1, 11, 21, 32, 37, 38 and 39, Shatil et al. must show or suggest, either expressly or inherently, in addition to all the other limitations of these Claims, a prefetch prediction engine: (1) that evaluates files using efficiency prefetch criteria (energy or cost), and that (2) generates a prefetch decision for each evaluated file.

In contrast, Shatil et al. only shows a method and apparatus that provides host controlled caching of data in a storage system. Shatil et al. teaches that requests for access to data are authorized by reference to prefetch criteria. In addition, the prefetch criteria is employed to generate information that controls the caching of data. Importantly, Shatil et al. indicates that prefetch criteria may include information that specifies the data that respective requestors may access. However, none of the prefetch criteria discussed in Shatil et al. is related to energy or cost efficiency.

Saxena does not teach or suggest a modification of Shatil et al. that would remedy the deficiencies of Shatil et al. that are discussed above. More specifically, Saxena does not teach or suggest a computer program product that includes a computer program mechanism that includes “a prefetch prediction engine coupled to the prefetch prediction model for evaluating the specified files with respect to prefetch criteria, including energy efficiency prefetch criteria, and generating a prefetch decision with respect to each file of the specified files” as is set forth in Claim 1 (Claims 11, 21, 32, 37, 38 and 39 contain similar limitations, or similar limitations related to cost efficiency).

Saxena only teaches a method and system for adaptive prefetching. In the Saxena system, whether or not a cache server performs a prefetch of a web page from an origin

server depends on the importance (“weight”) of a system link and an associated web page to an origin server. Nowhere, in the Saxena reference is it shown or suggested that energy or cost efficiency criteria be used as a basis for a prefetch decision. Consequently, Shatil et al. and Saxena either alone or in combination do not anticipate or render obvious the embodiments of Applicant’s invention as are set forth in Claims 1, 11, 21, 32, 37, 38 and 39.

Consequently, Applicant respectfully submits that Claims 1, 11, 21, 32, 37, 38 and 39 are in condition for allowance. Additionally, Applicant also respectfully submits that the cited combination does not anticipate or render obvious the present claimed invention as is recited in Claims 2-10 dependent on Claim 1, Claims 12-20 dependent on Claim 11, and Claims 22-29 and 31 dependent on Claim 21 and that Claims 2-10, 12-20, 22-29 and 31 overcome the basis for rejection under 35 U.S.C. 103 as being dependent on an allowable base claims.

Claims 35 and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Saxena (U.S. Patent Pub. No. US2002/0103778) in view of Shinozaki (US Patent No. 6,173,392). The Applicant has reviewed the cited references and respectfully submits that Saxena in view of Shinozaki does not anticipate or render obvious the present invention as is recited in Claims 35 and 36.

Saxena does not teach or suggest a computer system that includes a server module that generates a reply to a request that includes a specified file and “a prefetch predictor ...for identifying additional files for possible prefetching by the client computer” wherein the reply identifies “at least one of the additional files” as is set forth in Claims 35 and 36. Saxena only teaches a method and system for adaptive prefetching. In the Saxena system

whether a cache server performs a prefetch of a web page from an origin server depends on the importance (“weight”) of a link and an associated web page to the origin server. Nowhere, in the Saxena reference is it shown or suggested that a reply to a request include data related to additional files for possible prefetching by the client computer as is recited in claim 32 (from which Claims 35 and 36 depend).

Shinozaki does not teach or suggest a modification of Saxena that would remedy the deficiencies of Saxena noted above. Shinozaki only teaches a prefetch controller that automatically updates a history of accessed addresses. Nowhere, in the Shinozaki reference is it taught or suggested that a computer system include a system for responding to data access requests where a reply to a request includes data that specifies additional files that may be prefetched by the client computer. Consequently, Saxena and Shinozaki either alone or in combination do not anticipate or render obvious the embodiments of Applicant’s invention as are set forth in Claims 35 and 36.

Claim 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Saxena (U.S. Patent Pub. No. US2002/0103778) in view of Gillett et al. (U.S. Patent Pub. No. 2003/0097443). The Applicant has reviewed the cited reference and respectfully submits that Saxena in view of Gillett et al. does not anticipate or render obvious the present invention as is recited in Claim 34.

Saxena does not teach or suggest a computer system that includes a server module that generates a reply to a request that includes a specified file and “a prefetch predictor ...for identifying additional files for possible prefetching by the client computer” wherein the reply identifies “at least one of the additional files” as is set forth in Claims 35 and 36. Saxena only teaches a method and system for adaptive prefetching. In the Saxena system

whether a cache server performs a prefetch of a web page from an origin server depends on the importance ("weight") of a link and an associated web page to the origin server.

Nowhere, in the Saxena reference is it shown or suggested that a reply to a request include data related to additional files for possible prefetching by the client computer as is recited in Claim 32 (from which Claim 34 depends).

Gillett et al. does not teach or suggest a modification of Saxena that would remedy the deficiencies of Saxena noted above. Gillett et al. only teaches a system and method for delivering content over a network. Nowhere, in the Gillett et al. reference is it taught or suggested that a computer system include a system for responding to data access requests where a reply to a request include data that specifies additional files that may be prefetched by the client computer. Consequently, Saxena and Gillett et al. either alone or in combination do not anticipate or render obvious the embodiments of Applicant's invention as are set forth in Claim 34.

Conclusion

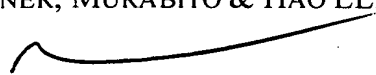
In light of the above-listed amendments and remarks, Applicant respectfully requests allowance of the remaining Claims.

The Examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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